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ABSTRACT

A program designed to meet the training needs of the agricultural community served by Fraser Valley College is outlined. Proposed as a two-year diploma program, it is designed for both full- and part-time enrollment and includes three major programs: livestock production, plant production, and poultry production. Each program contains several options to cover the various sectors of the agricultural industry. Courses are structured around 30-hour modules which can be taken separately or as packages to meet the needs of pre-service or in-service user groups. The program is production-oriented and includes a high proportion of practical experience on host farms; this has the advantage of not only providing realistic practical experience for the student, but also places the student in direct contact with future employers. Curriculum outlines and budget projections are included in the document. Appendices contain recommendations of consultants on agricultural training needs in the college service area and other supporting documentation. (Author/MB)

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A PROPOSAL FOR THE

DEVELOPMENT OF AGRICULTURAL EDUCATION

FOR FRASER VALLEY COLLEGE

JC 780491

Submitted to College Council
February 6, 1978

Prepared by Division of Instruction

Dick Bate Ed Redmond John DePape

SUMMARY:

This program is designed to meet the training needs of the agricultural community on as broad a base as possible with the maximum of flexibility.

Although it is proposed as a two-year diploma program, it is designed around basic units of learning of 30 hours. This arrangement allows for both full-time and part-time enrollment to meet individual needs as far as possible. The training can be used as initial training for those entering the work force or upgrading for those already involved with the industry.

The total agricultural education proposal includes three major programs: livestock production, plant production, and poultry production. Each of the programs contain a number of options to cover the various sectors of the agricultural industry. Each of the program options includes a number of modules which can be taken separately or as packages to meet the various needs of pre-service or in-service user groups.

This program is production oriented and includes a high proportion of practical experience on host farms. The use of host farms has the advantage of not only providing realistic practical experience for the student, but it also places the student in direct contact with future employers. This plan also involves local farmers as an integral part of the learning process.

It is further proposed to implement the program by phasing in the major units over the next three years starting with Animal Production in September 1978 with Plant and Poultry Production to follow in 1979 and 1980. It is expected that modules of the latter two programs will be implemented earlier to meet identified needs within the industry.

Initial staff requirements will be one permanent staff for each of the major components as they are phased in, plus a number of

short-term appointments to cover the specialty areas. Secondly, there will be no need for any major capital expenditures at this time in that the classroom/lab space is identified in current vocational facilities and the practical work will be done on operating farms.

Analysis of training needs has already been documented by the various reports and consultancies as well as the personal contacts that have taken place over the past year with individual farmers, advisory groups, and other agriculture related industries.

Purpose of Proposal

The purpose of this proposal is to review the need for agricultural training in the Fraser Valley College District, and outline a training program to meet that need.

Background

During the past ten years, a number of studies have been completed in the area now serviced by Fraser Valley College that point out the strong desire for the establishment of Career, Technical and Applied training to serve the needs of the constituents. The first survey in this regard was submitted in 1970 for the proposed vocational school and emphasized the need for training programs leading directly to employment in agriculture, mechanics, business and service industry.

In 1973 the Valley College Task Force prepared a report for the Minister of Education in which they recommended an expanded vocational/ career program offering, and the establishment of advisory committees consisting of employer and other knowledgeable people to ensure that programs would be designed to meet the needs of the local community.

The third and most comprehensive study dealing exclusively with agriculture, was the "investigation of agricultural vocational education requirements of Fraser Valley College District" prepared by Canadian Bio Resources Consultants Limited, in October of 1975. This report examined and catalogued the agriculture industry in terms of size, structure and future growth patterns in the Fraser Valley College District, and provided a methodology to facilitate the update of this information, as well as preparing recommendations for the role of the college in regards to agricultural training. The report made a number of recommendations which have been highly influential in the development of the college's thinking regarding its appropriate role in agricultural programming. The recommendation of the consultancy are attached (Appendix A).

A fourth report by Mr. D.G. Anstey, outlines the vocational needs of the college region as of December 1975. He recommended that "practical

agriculture" be offered in the Fraser Valley and that close liaison with secondary schools be established to encourage graduating students to become acquainted with Fraser Valley College Post-Secondary programs.

The fifth consultancy which was completed in September 1975, was a study of "education needs of Native Indians." This report documents some of the agricultural training needs of the Native people and recommended they be initiated as early as possible.

The B.C. Institute of Agrologists are also very concerned about the lack of practical agriculture training in this province and in September of 1975, the Fraser Valley Branch presented a brief to the Goard Commission. (Appendix B).

All of these studies clearly identify a need for agricultural training, and an opportunity for Fraser Valley College to provide a sound credit program in applied agriculture. The campuses of the college are properly located in the heart of the central Fraser Valley, Fraser Cheam and Dewdney-Allouette Districts, and therefore present an opportunity to develop and operate both short and long term programs. The area is also endowed with a high concentration of the many basic food production units with modern facilities and progressive operators.

NEED FOR A TRAINING PROGRAM:

Need for an agricultural training program has been further documented by several reports and studies.

A 1971 Statistics Canada document indicates there are 4,638 farms in the college region which is 25.2% of the total farms in the province. There are 750 farms with at least 70 acres and 2,500 farms that are between 10 to 69 acres in size. Most of these farm units require trained farm labour, some on a seasonal basis, many on a permanent year round basis. Dairy farmers make up 25% of the total farms in the area and represent 72% of the dairy farms in the province. The second largest group is the poultry producers with 8.5% (394 farms) of the area farms, but 74.7% of the provincial poultry farms. Fruit and vegetable producers, which are extremely labour intensive farm units, represent 7% of the provincial total. Farms raising other live stock (407) beef, sheep, swine, and goats in the College District represent 21.8% of the province's total in these groups.

The latest employment statistics in the agricultural industry are shown in Appendix C, and indicate a significant increase in farm employment during the past twelve months. Seasonally adjusted figures for 1976 show a relatively static agriculture labour force.

Agriculture is one of the most important industries in the Province with primary agriculture, agri-business, and trade put together. In 1969 the estimated gross provincial product of B.C. was 8.64 billion dollars and primary agriculture, agri-business and trade accounted for $501,000,000.00 or 5.8% of the gross provincial product. Directly and indirectly, B.C. agriculture generates $1.00 out of every $8.00, and direct and indirect employment involves 1/6th of the entire B.C. labour force.

A recent study done by the Central Fraser Valley Regional District points out that approximately 1/3 of the province's farm population managed only 5% of the total B.C. farm acreage, but they produced almost 64% of the total farm product sales in the province. The central Fraser Valley is the heart of the most productive farming region in B.C. It is favorably situated climatically and geographically, and it produces the widest range of crops in the entire country. Its farmlands are the most intensively cultivated and efficiently managed in the province.

A survey of the agricultural community conducted by Fraser Valley College in the summer of 1976 indicated a need for training in the areas of dairy, beef, swine production, farm mechanics, agri-business including finance, credit, recordkeeping, income tax, and estate planning. There was also a great deal of interest in soils, fertility, drainage, and horticulture - vegetable, cash crops, and berries. There were 1,200 survey sheets mailed out through the BCMA with 287 responses.

The need for agricultural training was further demonstrated by Canada Farm Labour Pool correspondence to three government ministries. (Appendix D). It is interesting to note: "The lack of agricultural education in British Columbia is creating a shortage of qualified farm workers in our farm industry, this problem being compounded by recent immigration legislation which has virtually cut off all access to European trained workers which has traditionally been the source of skilled farm employees in Canada." (Paragraph two of December 15/77 letter by Arthur R. Cayford).

PROGRAMS OUTLINE:

In recognition of a) the Provincial and Regional need for a trained agricultural work force and b) the realities of training requirements and employment possibilities in the agricultural sector, the college has expended considerable effort in an attempt to design an appropriate agriculture curriculum. This has involved the identification of specific programs (content) areas and the development of a plan for the general organization of these programs.

The grid on page 5 summarizes the program areas which it is felt Fraser Valley College should develop. The grid indicates options associated with each area, options to be offered within each program and further subject matter comprising each option.

The proposal therefore, is that Fraser Valley College would implement three major programs; Animal Production, Dairy, Beef, Swine and Sheep options, Poultry production with broiler, egg, and turkey options, and Plant production with forage crops, horticulture, soils, and berry crops as options. As can be determined by the grid, much of the content area of each option is common. In each option, there are a limited number of content areas unique to that option. Consequently, most students taking these options will be taught one general class.

The programs proposed would be developed in the light of a number of basic program concepts; these are:

1. *The goal of each program should be to produce an employable graduate in the sense that the skills developed in the student are those required by the potential employer.*
2. *The emphasis of the program should be on primary agriculture and the applied technology of production. Students must be prepared to carry out fundamental activities connected with primary agriculture.*
3. *The program should offer appropriate balance between practical or "hands on" training and supporting theory or general knowledge.*
4. *The program should serve both the pre-employment student as well as the student seeking upgrading or in-service training. Courses should be designed to serve both types of students at the same time.*

F R A S E R V A L L E Y C O L L E G E

AGRICULTURE PROGRAM

	Animal Production					Plant Prod.					Poultry Production			
	DAIRY	BEEF	SWINE	SHEEP		FORAGE CROPS	HORTICULTURE	SOILS	BERRY CROPS		BROILERS	EGGS	TURKEYS	
Introduction to Livestock Production	X	X	X	X										
Planning a Livestock Production Program	X	X	X	X										
Digestion Systems	X	X	X	X										
Nutrition & Feeds	X	X	X	X										
Livestock Housing & Equipment	X	X	X	X										
Reproduction & Breeding Systems	X	X	X	X										
The Laws of Inheritance	X	X	X	X										
Feeding & Management of Calves	X	X												
Livestock Health Practices	X	X	X	X										
The Basic Herd - Purebred/Commercial	X	X	X	X										
Feeder Cattle Selection & Purchase		X												
Feeding & Management of Stockers & Feeders		X												
Feedlot Diseases & Health Programs		X												
Marketing Feedlot Cattle		X												
The Beef Carcass - Producer to Consumer		X												
Soil Classification, Fertility & P.H.	X	X	X	X		X	X	X	X					
Water Management	X	X	X	X		X	X	X	X					
Forage Production	X	X	X	X		X								
Agricultural Engineering (Mechanics)	X	X	X	X		X	X	X	X		X	X	X	
Building Construction	X	X	X	X		X	X	X	X		X	X	X	
Marketing Principles, Marketing Agencies	X	X	X	X		X	X	X	X		X	X	X	
Agricultural Finance & Credit	X	X	X	X		X	X	X	X		X	X	X	
Agricultural Taxes & Estate Planning	X	X	X	X		X	X	X	X		X	X	X	
Ecomomics & Marketing	X	X	X	X		X	X	X	X		X	X	X	
Botany						X	X		X					
Soil Maps						X	X	X	X					
Soil Analysis & Soil Chemistry						X	X	X	X					
Conservation & Soil Management						X	X	X	X					
Vegetable Crops & Rotation Schemes						X	X							
Greenhousing							X							
Landscaping Gardening							X							
Berry Crops & Rotation Schemes									X					
Introductory Poultry Production											X	X	X	
Broiler Production											X			
Commercial Egg Production												X		
Hatching Egg Production (Breeder Flock)											X	X	X	
Turkey Production													X	

5. *The program should acknowledge and credit previous student learning and/or experience such that progress through the program is accelerated wherever possible.*
6. *The program should utilize the instructional resources available in the community through other agencies or through individual contracts, primarily of a part-time nature.*
7. *The program should solicit the participation and support of the agricultural community. Specifically, the "host farm" concept must be an integral part of the program. "Host farmers" are in a position to offer an actual setting for practical training and their knowledge and expertise should be tapped wherever possible. This would eliminate the need for an institutional farm or like facility.*
8. *The program should offer a certificate or diploma through a system of credit accumulation of the various components of the program.*

CURRICULUM ORGANIZATION:

In order that the above program concept may be implemented, it is proposed that the curriculum be organized in a "modular" format, the basic unit of the curriculum being the module. In this case, the module is defined as a unit of learning which, on the average, can be taught in 30 hours or multiples thereof. Each course would be comprised of a number of modules. Each program would be comprised of five courses. The progression therefore is from modules to courses to program completion.

Modules would vary in length from one to three weeks. Credit would be assigned to modules on the basis of 1 credit for 30 hours of instruction. Since 30 hours typically equals one week of full-time instruction, a three week module would be equal to 3 credits.

The value of the modular curriculum is that it breaks down the training program into refined units with each unit having the quality of a regular course, ie. a set of objectives or defined outcomes, related learning activity, and a specific evaluation procedure. Consequently, the student, for example a person wishing to upgrade in a specific area, can opt in for particular modules when and as they are offered without the requirement of taking the balance of a course or program. In this way the same training program may be offered to the upgrading student as well as

the preservice student. Additionally, a popular module can be offered whenever it is required and in whatever format is required; for example, full-time for one week equals 30 hours, 3 hours per week for 10 weeks, or possibly over a period of two weekends.

The chart on page 8 depicts the organization and curriculum for the Beef option of the proposed Anumal Production program. Note that the program is broken down into courses which are further broken into modules, with the hours associated in each module and credit value indicated. Upon completion of the program illustrated, the student would have earned a total of 60 credits.

As has been indicated, each module would basically "stand alone". In some instances, entry into a given module may require the completion of a prerequisite module. Every attempt would be made to minimize this possibility so that maximum flexibility is maintained. We expect that many students will be interested in completing selected modules and may not be concerned with completing an entire course or program. Students will be credited for each module completed and transcripts, certificates or diplomas will be offered for module, course and program completion as may be appropriate.

PROGRAM IMPLEMENTATION:

It is proposed that the programs outlined be phased in over a period of approximately three years in the following sequence:

September 1978 - Animal production

September 1979 - Poultry production

September 1980 - Plant production

By phasing in programs the college will be able to assess general student response to programs, the notion of mixed in-service and preservice students, the general curriculum model, the availability of host farms, basic staffing strategy, etc. An evaluation would be made in the spring of 1979, prior to implementing additional programs in poultry and plant production.

Direct contact has been made with the agricultural community through advisory committees who have provided input for program development. The committees that have participated are listed in Appendix E.

ANIMAL PRODUCTION PROGRAM — Beef Option

Courses	Modules	Hours	Credit
Basic Beef Production	1. Introduction to Beef Cattle Production	30	1
	2. Planning a Beef Production Program	30	1
	3. Ruminant Digestion	30	1
	4. Nutrition & Feeds	30	1
	5. Beef Cattle Housing & Equipment	30	1
	6. On-the-Job Training (9 weeks)	270	9
	TOTAL	420	14
Beef Cow/Calf Production	1. Reproduction & Breeding Systems	30	1
	2. The Laws of Inheritance	30	1
	3. Feeding & Management of Calves	30	1
	4. Cattle Health Pracitces	30	1
	5. The Basic Herd - Purebred/Commercial	30	1
	6. On-the-Job Training (9 weeks)	270	9
	TOTAL	420	14
Beef Feedlot	1. Feeder Cattle Selection & Purchase	30	1
	2. Feeding & Management of Stockers & Feeders	30	1
	3. Feedlot Diseases & Health Programs	30	1
	4. Marketing Feedlot Cattle	30	1
	5. The Beef Carcass - Producer to Consumer	30	1
	6. On-the-Job Training (9 weeks)	270	9
	7. Major Written Project	—	4
	TOTAL	420	18
Agri-Management	1. Soil Classification, Fertility, P.H.	30	Classroom
	2. Water Management	30	.
	3. Forage Production	30	+
	4. Agricultural Engineering	180	Laboratory
	5. Building Construction	60	+
	6. Marketing Principles Marketing Agencies	30	
	7. Agricultural Finance & Credit	60	Shops
	TOTAL	420	—
	TOTAL	1680	60

*Credit for equivalent (previous) experience will be given

Theory-- 630 hours

On-the-Job Training- 1050 hours

AGRICULTURAL PROGRAM BUDGET

1st year 1978-79

Direct Cost		
Salaries:		
1 Full-time Instructor(s)	$18,000.00	
2 Part-time Instructor(s)	29,200.00	
Others (Specify) Veterinarian	1,000.00	
Fringe Benefits	4,000.00	$52,200.00
Supplies:		
*Equipment & Library	$ 6,000.00	
Textbooks	1,000.00	
Consumables	5,000.00	
Transportation	2,000.00	
Other		14,000.00
Total Direct Cost		$66,200.00
Administration:		
Co-ordinator	$25,000.00	
½ Secretary	4,500.00	
Travel: in-district	1,300.00	
out-district	700.00	$31,500.00
TOTAL BUDGET		$97,700.00

*Please note: Equipment & Library can be covered under a capital budget, thereby reducing the above total by the same amount.

AGRICULTURAL PROGRAM BUDGET

2nd year 1979-80

Direct Cost		
Salaries:		
2 Full-time Instructor(s)	$ 40,000.00	
5 Part-time Instructor(s)	37,500.00	
Others (Specify) Veterinarian	2,200.00	
Fringe Benefits	9,700.00	$ 89,400.00
Supplies:		
Equipment & Library	$ 3,000.00	
Textbooks	1,000.00	
Consumables	8,000.00	
Transportation	3,500.00	
Other		15,500.00
Total Direct Cost		$104,900.00
Administration:		
Co-ordinator	$ 25,000.00	
½ Secretary	4,500.00	
Travel: in-district	1,400.00	
out-district	800.00	
Fringe Benefits	2,950.00	$ 34,650.00
TOTAL BUDGET		$139,550.00

*Please note: Equipment & Library can be covered under a capital budget, thereby reducing the above total by the same amount.

AGRICULTURAL PROGRAM BUDGET

3rd year 1980-81

Direct Cost		
Salaries:		
3 Full-time Instructor(s)	$ 65,000.00	
4 Part-time Instructor(s)	31,000.00	
Others (Specify) Veterinarian	3,000.00	
Fringe Benefits	8,050.00	$107,050.00
Supplies:		
Equipment & Library	$ 4,500.00	
Textbooks	2,500.00	
Consumables	10,000.00	
Transportation	4,500.00	
Other		21,500.00
Total Direct Cost		$128,550.00
Administration:		
Co-ordinator	$ 27,000.00	
½ Secretary	5,250.00	
Travel: in-district	1,600.00	
out-district	900.00	
Fringe Benefits	3,225.00	$ 37,975.00
TOTAL BUDGET		$166,525.00

*Please note: Equipment & Library can be covered under a capital budget, thereby reducing the above total by the same amount.

APPENDIXES

A . . . . . Recommendations taken from Canadian Bio-Resources Consultancy Report, 1975

B . . . . . Agrologists' Brief on Agricultural Education

C . . . . . Employment Statistics

D . . . . . Canada Farm Labour Pool

E . . . . . Advisory Committees

Recommendation 1

That Fraser Valley College become the centre for agriculture vocational education in British Columbia, and that:

a) where feasible, specific courses be taught at other locations under the auspices of the local regional college to meet regional needs and that these regional courses be coordinated through the Fraser Valley Regional College.

Recommendation 2

That the agricultural vocational education offered by this centre be primarily designed to train personnel for the farm labourer or farm foreman type of position:

a) that courses on farm management be made available as needs arise, but that these be limited to In-Service courses,

b) that courses be modular and self-contained to provide levels of training that are not dependent upon completion of an entire program,

c) that these modular courses be structured so that they can develop into a full pre-service program,

d) that a system of credits be developed and assigned to the various courses that would allow accreditation and the awarding of a certificate to a person completing a number of the courses.

The need to provide practical courses with the accent on "on farm training" has been mentioned many times in this report. The use of "institutitional type farms" to provide this training has been employed in many instances. This type of facility is not considered desireable because of:

-the high cost of such a facility, both in terms of initial capitalization and operating expenses, parcicularily if it is to serve a broad range of agricultural activities, and,

-the difficulty of reproducing actual farm activities on such a unit.

For these reasons it is not recommended that Fraser Valley College have an "institutional type farm" associated with its

agricultural vocational programs.

However, to provide farm facilities for agricultural vocational programs, it is important that farm facilities be available and it is recommended that arrangements be made with farmers to use their facilities to accomplish this phase of the program. The arrangements necessary will vary from program to program and will require a flexible approach to the situation on the part of the College. The B. C. Department of Agriculture has indicated that they would be willing to assist in the development of a program to meet this requirement.

Apart from the "on farm training" it is important that the College have the necessary laboratory, greenhouse, and other facilities required to supplement the formal lecture portion of agricultural vocational education programs.

Recommendation 3

That the Fraser Valley College does not establish an "institutional type farm" to assist in the agricultural vocational education program, but that arrangements be made with existing farms to provide "on farm training".

The success of an agricultural vocational education program will be dependent, to a large extent, on the ability of the College to determine the needs of the region and respond to these needs with acceptable programs. To accomplish this it is deemed necessary that the Fraser Valley College employ a full time agricultural vocational educational coordinator to institute and coordinate these programs. This individual would not necessarily be responsible for the actual teaching of the courses, but would be responsible for determining the needs, assembling the desired resource personnel and directing the program. It is essential that this person have a good understanding of the primary agriculture industry and be able to provide appropriate liaison with the various segments of this industry.

The statistical package presented in this report

provides an information base on which to determine the needs and desires of the Fraser Valley College area with some reference to other areas in the province. However, it is necessary that this data be continually updated and supplemented with new sources of information as they become available.

The formation of an Agricultural Vocational Committee, to assist Fraser Valley College in the formation of the appropriate policies and programs, in regards to agriculture vocational education, would be of benefit by providing a broad spectrum of opinion and interaction. This committee should include representatives from the appropriate commodity groups, farm organizations, government, and other interested bodies. A similar committee is successfully employed at the B. C. Institute of Technology and their situation should be examined as a source of information in forming the Fraser Valley College committee.

The exact size and formation of the committee should be left to the agricultural coordinator, but it should include representations from the following:

1) Livestock commodity groups - dairy, beef cattle, hogs, etc.,

2) Farm Labour Pool,

3) B. C. Department of Agriculture

Recommendation 4

That the Fraser Valley College employ a full time agriculture vocational coordinator whose responsibilities will include:

a) production of agriculture vocational education courses and programs in response to the needs within the area,

b) coordination of other agricultural vocational education programs into an overall program in response to the needs within the area,

c) continual upgrading of statistical information on the agriculture of the area,

d) continual testing of response to programs of agricultural vocational education.

Recommendation 5

That an advisory committee be formed that would meet on a regular basis to provide a broad spectrum of opinion on agricultural vocational education.

Within the Province of British Columbia agricultural education occurs at these levels:

1. Scientific Training - University of British Columbia
2. Technical Training -- B. C. Institute of Technology
3. Vocational Training - this has not been formalized but it has been assigned to the regional colleges.

It is desirable that these areas of responsibility remain succinct to prevent overlapping and duplication of efforts. Overlapping and duplication is not only wasteful but it is also confusing to those persons who are to be served by these institutions. A person desiring an education in agriculture should be able to make a decision on which institution to enter, based on the type of work desired following graduation. To ensure that this separation of responsibility is maintained, and that liaison is established between the three levels of training, it would be desirable to establish a committee concerned with agricultural education in British Columbia. It would be appropriate, if Fraser Valley College becomes the dominant force in agricultural vocational education, to have Fraser Valley College represented on this committee. Because of the dominant role of the B. C. Department of Agriculture, it is important that they also be represented on this committee.

Recommendation 6

That a liaison committee on agricultural education in British Columbia be established comprising representatives from B. C. Department of Agriculture, University of British Columbia, B. C. Institute of Technology and Fraser Valley

College. The responsibilities of this committee should include:

a) liaison and exchange of information,

b) examination of committee member programs to ensure that three levels of agricultural education, (i.e. scientific, technical and vocation), are being dealt with adequately with a minimum of overlapping and duplication.

The importance of the B. C. Department of Agriculture, in regards to the primary agriculture industry, and the apparent conflicts between agricultural vocation education facilities at some locations outside the province, dictates that there be a close liaison established between the Department of Agriculture and Fraser Valley College. In some areas, (i.e. short courses, siminars, etc.), the extension activities of the B. C. Department of Agriculture, and to some extent, those of the University of British Columbia, and the B. C. Institute of Technology, provide input into agricultural vocational education. If Fraser Valley College is to carry out the responsibility for agricultural vocational education it is important, particularly in the Fraser Valley, that these extension activities be coordinated through the college. At the lowest level this coordination should involve advisement to the College, by these institutions and the B. C. Department of Agriculture, of planned programs so that the College can coordinate its activities with these programs. However, a more desirable approach would be to have the College involved in the planning of these programs so that they would become part of the overall vocational education program for the area.

Recommendation 7

That the Fraser Valley College act as a coordinator for the extension activities of the B. C. Department of Agriculture, the University of British Columbia, and the B. C. Institute of Technology, where the activities constitute agricultural vocational education.

In addition to the agricultural vocational needs of the primary agricultural industry there is also a need for educational programs for the part-time or hobby farmer. These can cover a wide range of topics such as pleasure horses (management and training), backyard gardening, organic farming, home food preservation, etc. An important role of the College will be to provide courses to meet this need.

Recommendation 8

That a series of courses be held to meet the needs of the part-time or hobby farmer.

The requirements of Native Indian People, for agricultural vocational education has been dealt with in this report. With the activity presently taking place at the Seabird Island Reserve, plans for development on one other reserve and the overall desire on the part of Native People to control and direct more of their own activities, these requirements should become more pronounced. It would not seem desirable to set up separate agricultural vocational education programs for Native People, since they will require the same training as others in vocational agriculture. However, because of the lack of exposure to agricultural practices on the part of most Native People, it would be beneficial to have an introductory program consisting of field visitations to expose them to current practice.

Recommendation 9

That agricultural vocational education programs for Native Indian People not be separated from the overall college program. The only change from this could be the use of a program to expose Native People to current agricultural practices.

Agricultural vocational education courses will be produced as a result of Fraser Valley College being asked to put on a course or the College officials decide to put on a course. In both cases the validity of the course

should be tested to determine what response the course may have, and to obtain further information on the group that will be taking the program. The tests available include:

- test using base inventory data on hand and update with general statistics
- test via college associates
- test via agriculture sector associations where they supply updated inventory figures as well as reflections on education needs, and,
- test via a more fundamental survey of a given agricultural sector.

Recommendation 10

That Fraser Valley College carry out procedures to test the validity of agricultural vocational education courses that are planned or requested.

FRASER VALLEY BRANCH BRIEF ON

AGRICULTURAL EDUCATION

Presented to the Goard Commission
by Curt Blundell

AGRICULTURE EDUCATION may be divided into three categories:

1. Degree
2. Technical
3. Vocational

The degree and technical categories are very adequately handled by the University of British Columbia and the British Columbia Institute of Technology.

The vocational agriculture education is the area that is being neglected at the present time.

The vocational graduate would be the farm foreman, the herdsman, or the working specialist on the farm.

Several attempts have been made to further vocational agriculture education in British Columbia. For various reasons these attempts have not been too successful.

For a number of years vocational agriculture courses have been available in the rural secondary schools. These courses suffered through lack of facilities, they were loosely coordinated, and they had a tendency to become a haven for the ne'er-do-well student. As a result the quality of the graduating student was marginal.

A general vocational agriculture program is presently offered at Northern Lights Regional College, Dawson Creek, B.C. Attendance has been disappointing, possibly due to the remoteness of the facility in relation to the densely populated agricultural areas of the province. The fact that a well established and well accepted vocational agriculture program is available at nearby Fairview College, Fairview, Alberta, may contribute to the poor attendance at Dawson Creek.

It is generally accepted that agriculture is now big business and remuneration for farm workers is now quite acceptable and comparable to that of other industries. The old cliche "that if you are too stupid to do anything else--you can always go farming" is no longer valid. Farmers now demand a much better qualified employee, and this demand for more expertise is increasing.

The way to meet this demand is through comprehensive vocational agriculture education.

The Fraser Valley area is ideally situated to be the centre of vocational agriculture education for the province. Within its boundaries are the most densely populated areas of diversified agriculture in B.C. Seventy-two percent[1] of the dairy industry of the province is in the Fraser Valley, 1,175[1] of the provincial total of 1,633[1] dairymen are located in the area. Eighty-two percent[1] of the poultry producers are located in the area, and 50% of the swine producers. While the lions share of the beef producers are located in the interior of the province, there is substantial representation in the Fraser Valley. The bulk of the beef finishing feedlots are located in the area.

The federally licensed and inspected abattoirs are located in the Valley.

Substantial numbers of Fraser Valley farmers are involved in small fruit production, vegetable production, bee-keeping, mink ranching and the production of sheep, goats, and rabbits. Thriving nursery, greenhouse and landscaping enterprises are also in the area. Over 50%[1] of the total agriculture for the province is located in the Fraser Valley.

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1. Source--Husdon, Kennedy-1975 Agriculture education requirements for Fraser Valley College

The Fraser Valley area has access to the expertise of British Columbia Department of Agriculture personnel, located at Chilliwack, Abbotsford and Cloverdale, who are specialists in horticultural crops, livestock production, dairying, farm management, farm economics, forage production, poultry, field crops, soils, plant pathology, entomology and agricultural engineering.

Located in Abbotsford is the B.C. Department of Agriculture Veterinary Laboratory with a staff of trained veterinarians and laboratory technicians.

Located at Agassiz is the Canada Department of Agriculture Research Station with a highly efficient staff of research personnel.

With the availability of these people as guest lecturers the cost of teaching could be kept to a minimum.

In addition, there are seven major fruit and vegetable processing firms, eight feed and fertilizer manufacturers and seven hatcheries in the area, with professional personnel on their staff who could contribute as guest lecturers.

Farming today has become much more specialized than it was several years ago and this trend will continue. Therefore, the farm labor demand is also for specialists. Vocational agriculture courses should be structured to develop these specialists in areas that they are required.

As most potential students for vocational education do not have the financial resources to enroll in a lengthy course, vocational agriculture courses should be restricted to a length of three months. A general agriculture course could not be properly completed within this time frame. A course dealing with a particular endeavor, such as dairying, small fruit production, etc., could be dealt with adequately in this period.

Students wishing to further their agriculture education could do so by taking subsequent courses. Recent pilot courses conducted by Fraser Valley

College, such as the farrier course and the milker training course, have shown that there is a demand for personnel trained for a specific purpose and that there is sufficient student interest to warrant courses of this nature.

The milker training course also demonstrated the value of the combination of theoretical training and on-the-job training, 65% of the course time was on-the-job training and 35% theory. The on-the-job training was accomplished with the cooperation of selected local dairymen. The classroom lectures were given by guest speakers from B.C.D.A., C.D.A. and agri-business. The degree of expertise of the successful trainee was considered very acceptable.

The programming of courses should be very flexible. Courses in a particular endeavor should not be repeated simply because the course was held at this time last year. Demand for trained personnel in a particular field of agriculture should be the major reason in a decision to conduct a particular course. There is no justification for training experts in a particular field where there are no prospects of employment.

Personnel responsible for programming courses must continually be aware of the demand and anticipated demand for agriculture employees.

One exception to the rule of employee demand for instituting a course would be the need for upgrading presently employed personnel and the upgrading of farmers themselves.

With the increasingly complex nature of farming, farmers in the Fraser Valley have indicated that they would welcome courses that would increase the efficiency of their present employees and, in some cases, themselves.

As previously mentioned, the milker training course was conducted with the cooperation of local dairymen. This format could be employed by most vocational agriculture courses. This exposes the student to the more practical

nature of agricultural employment and to various approaches and methods rather than the more artificial atmosphere and methods of an institutional farm.

This format would also place on-the-job training in the realm of possibility and practicability as the institutional farm approach would be prohibitively costly.

A credit system should be instituted. This would acknowledge that a student had successfully completed a course and it would also, in some cases where theoretical courses may be common with those required by other courses, allow a student to complete subsequent courses at an accelerated rate.

SUMMARY OF CONCLUSIONS

1. That vocational agriculture education is urgently needed in British Columbia.
2. That the Fraser Valley area is well suited to be the centre of vocational agriculture education
3. That vocational agriculture education courses be of an apprentice type and that on-the-job training be incorporated wherever possible.
4. Thatcourses be structured to develop specialists in particular agricultural endeavors as opposed to general agricultural courses.
5. That vocational agriculture programs be extremely flexible, so that a particular course may be dropped or replaced as demands change.
6. That demand for trained personnel in a particular agricultural endeavor be the criterion for conducting a course, except for the purpose of upgrading presently employed personnel.
7. That on-the-job training be accomplished with the cooperation of area farmers rather than establishing special facilities for this purpose.
8. That theoretical instruction be accomplished, mainly, by the use of guest lecturers who would be acknowledged experts in their field.
9. That a credit system be established recording the progress of students in various courses.
10. That the need is recognized for several levels of vocational development.

ESTIMATES OF EMPLOYMENT BY INDUSTRY AND BY OCCUPATION
BRITISH COLUMBIA, 1976
(000's)

Employment by Industry

	1975 Avg.	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Goods Producing	294	278	293	307	300	313	312	336	341	322	326	317	
Agriculture	16	15	19	18	18	19	17	21	18	18	18	18	
Other Primary Industries	42	42	47	45	45	46	48	46	48	47	45	44	
Manufacturing	156	156	161	173	162	169	164	178	179	173	180	177	
Construction	80	65	66	71	75	79	83	91	96	84	83	78	

Employment by Industry

	1976 Avg.	Jan	Feb	Mar	Apr	May	-1977- June	July	Aug	Sept	Oct	Nov	Dec
Goods Producing	313	307	304	311	310	327	333	338	340	328	320	314	
Agriculture	18	14	16	18	20	21	22	28	25	23	23	22	
Other Primary Industries	45	39	39	37	34	42	51	53	49	49	48	43	
Manufacturing	170	169	168	175	174	177	181	173	183	173	167	171	
Construction	80	85	81	81	82	87	79	84	83	83	82	78	

SOURCE: Statistics Canada, "The Labour Force", Ottawa, Cat. 71-001 monthly.

APPENDIX "D"

CANADA FARM LABOUR POOL

"SERVING THE AGRICULTURAL INDUSTRY"

Box 129
ARMSTRONG,
BRITISH COLUMBIA
VOE 1BO

TEL: (604) 546-5626
ARTHUR CAYFORD, MANAGER

December 16, 1977

Ed Redmond,
Fraser Valley College,
34194 Marshall Road,
Abbotsford, B. C.
V2S 5E4

Dear Mr. Redmond:

Enclosed are copies of letters sent to the Ministries of Agriculture, Labour and Education, setting out our concern regarding shortage of skilled agricultural workers, and agricultural education in B. C.

I hope that this will help the agricultural education situation in B. C.

Yours truly,

Arthur R. Cayford

Arthur R. Cayford
Manager

ARC/im

Encl.

December 15, 1977

Minister of Labour,
B. C. Ministry of Labour,
Legislative Building,
Victoria, B. C.

Dear Sir:

At the annual meeting of Canada Farm Labour Pool managers in B. C. in Victoria on December 6 and 7, 1977, it was unanimously agreed that your Ministry be advised as follows:-

The lack of agricultural education in British Columbia is creating a shortage of qualified farm workers in our farm industry, this problem being compounded by recent immigration legislation which has virtually cut off all access to European trained workers which has traditionally been the source of skilled farm employees in Canada.

The Fraser Valley College is to be commended on their efforts to institute and promote viable agricultural training and we of the Canada Farm Labour Pool wish to express our support for the College and urge the Government to do all in its power to create a skilled work force on whom our future food supplies depend.

Yours truly,

Arthur R. Cayford
Chairman, C.F.L.P.
Managers Conference

ARC/im

c.c. to C.F.L.P.'S
Fraser Valley College

British Columbia Agriculture
OFFICE OF THE MINISTER
Victoria
British Columbia
V8V 1X4
Phone: 387-3656

January 12, 1978.

Mr. Arthur R. Cayford,
Chairman,
Canada Farm Labour Pool,
Box 129,
Armstrong, British Columbia.
V0E 1B0

Dear Mr. Cayford:

Thank you for your letter of December 15, 1977 advising me of the resolution passed at the Annual Meeting of the Canada Farm Labour Pool Managers.

I am aware of the continuing need to train persons to be qualified farm workers. As you may be aware, the Fraser Valley College has recently been designated as the lead institution in the Lower Mainland to offer vocational agricultural training programs. They will be preparing courses in a "modular" form so that it may be offered in other areas of the Province as required.

My Ministry supports this development and is actively participating in a liaison committee to ensure that co-ordination of courses takes place.

Your organization could provide a useful service by presenting documented needs to the Fraser Valley College.

Yours very truly,

James J. Hewitt,
Minister of Agriculture.

You need our farmers . . . Our farmers need you . . . Buy B.C. Food Products

British Columbia Labour
OFFICE OF THE MINISTER
Victoria
British Columbia
V8V 1X4

January 4, 1978.

Mr. Arthur R. Cayford,
Chairman, C.F.L.P.
Managers Conference,
Canada Farm Labour Pool,
Box 129,
Armstrong, British Columbia
V0E 1B0

Dear Sir:

I have for acknowledgment your letter of December 15, 1977 and thank you for advising me of the position expressed at the Conference pertaining to the shortage of qualified farm workers and the implications of recent Federal legislation on the subject of immigration.

I am sending a copy of your letter forward to officials of the Ministry of Labour in order that they may be aware of your concern.

Yours very truly,

Allan Williams

Allan Williams,
Minister of Labour.

Fraser Valley College Agricultural Education Advisory Committee:

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McCausland Consultation Services Ltd.
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CLEARBROOK, B.C.

Mrs. Elizabeth Leroux
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DEROCHE, B.C.

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SARDIS, B.C.

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